

# THE RHODE ISLAND MEDICAL JOURNAL

Issued Monthly under the Direction of the Publication Committee of the Rhode Island Medical Society.

VOLUME XX {  
NUMBER 6 } Whole No. 333

JUNE, 1937

PER YEAR \$2.00  
SINGLE COPY 25 CENTS

## DIABETES AMONG THE MODERNS

JOHN S. DZIOB, M.D.

RESIDENT PHYSICIAN, JANE BROWN MEMORIAL  
HOSPITAL, PROVIDENCE

Diabetes, unlike Syphilis, extends back to the dawn of civilization. Reference to it can be found in the famous Elbers Papyrus; hence the ravages of the disease must have been known to the ancient dwellers at the mouth of the Nile. The name Diabetes<sup>1</sup> was applied by the authors of antiquity to a disease which they characterized either by one or all of the familiar triad of symptoms; loss of weight, excessive urination, and tremendous thirst. Aretaeus,<sup>2</sup> the Cappadocian, more than seventeen hundred years ago, wrote of this illness: "the flesh melted into urine and the thirst was excessive." Sixteen hundred years later, in the seventeenth century, when diabetes was also known as the "Pissing Evil," Willis,<sup>2</sup> a contemporary of Sydenham, found by tasting it, that the urine of diabetics is sweet, "as if imbued with sugar or honey;" thus at once differentiating this disease from Diabetes Insipidus. Mathew Dabson, a pioneer in medical research, proved, in 1750, that the substance giving the sweetish taste is sugar.<sup>2</sup>

In the following century, 1889, Mering and Minkowski<sup>2</sup> extirpated the pancreas of a dog, to settle thereby an argument as to the fate of an animal subjected to such an operation. Minkowski noticed that flies clustered thickly on the urine of his depancreatized animals. His curiosity thus aroused, he found on investigation that there was sugar in the urine to the extent of five percent.; and that, moreover, all of his operated dogs thereafter died with the symptoms of diabetes. This was probably the greatest single contribution to the study of the disease and one of the most brilliant discoveries in medicine. In 1900, Eugene Opie,<sup>2</sup> then instructor in pathology at Johns Hopkins University, described for the first time, in the pancreas of diabetics, a hyaline degeneration of the Islands of Langerhans. It was Opie's discovery which led Sir Edward Sharpey-Schafer to postulate, in 1916, the theory that diabetes was due to the

lack of a hypothetical internal secretion, normally elaborated by the Islands of Langerhans. To this he gave the name Insulin.

The problem of extracting the active principle of the Islands of Langerhans<sup>1</sup> was settled by Banting, a young Canadian orthopedic surgeon, who, fascinated by the challenge of finding a cure for an incurable disease, gave up his practice and went to work in Prof. MacLeod's laboratory in Toronto. He was assigned a second-year medical student, Charles H. Best, to assist him. In less than one year, these lucky workers triumphed where others for centuries had failed. The year following, in 1922, they successfully introduced insulin into medical practice.

One of the most interesting clinical signs in diabetes,<sup>2</sup> the characteristic air-hunger of severe acidosis, was first described, in 1874, by Adolf Kussmaul. It is now called after him, the Kussmaul type of respiration.

The last advance in diabetic therapy, coming just sixteen years after the discovery of insulin, is the development of Protamine insulin by Hagedorn. This advance, according to Joslin,<sup>10</sup> which promises to control the mild and moderately severe cases with a single dose of Protamine insulin combined with a diet but moderately restricted, ought to be recognized and named for its discoverer—"the Hagedorn Era."

### *Metabolism in Diabetes*

Diabetes is a disease of carbohydrate metabolism. In it the tolerance of the individual for carbohydrates is to a varying degree less than normal; consequently, glucose<sup>3</sup> is not removed from the circulating blood and stored, as it ordinarily should be, in the liver and muscles in the form of glycogen, the latter being the animal, or so to speak, warehouse kind of glucose. Its level in the blood, therefore, rises over and above the renal threshold of one hundred and eighty mgms. percent., and is spilled into the urine, as the familiar glycosuria.

The carbohydrates<sup>3</sup> thus passing through the body unoxidized, there results a great loss of energy, for which the body tries to compensate by an utilization of its proteins and fats. The metabolism of the former (proteins) does not appear to

Read before the Amos Throop Medical Club, April 13, 1937.

be seriously disturbed, and so the carbohydrate portion of the protein molecule, in part, takes the place of the lost sugars. The danger, however, arises in the metabolism of the fats. Here the loss of sugar is vitally felt; because the complete combustion of fats demands a simultaneous oxidation of a definite quantity of glucose, the ratio necessary being recognized as one gram of glucose to two and a half grams of fatty acid, or approximately one gram of carbohydrate to three grams of fat. This is simply a modified reiteration of the hackneyed expression, "fats burn only in the flame of carbohydrates."

In consequence of the failure of oxidation of sugar, the fat metabolism proceeds to an incomplete extent; namely, to the formation of the ketone bodies; the obnoxious hydroxybutyric acid, diacetic acid, and acetone. These substances produce the acidosis that brings in its wake coma and death in untreated diabetes.

There are two simple tests available<sup>12</sup> for the detection of ketone bodies in the urine, and accordingly, by the same token, of the degree of acidosis in the body. The ferric chloride test for diacetic acid detects these substances only when they are present in quantities which indicate the imminence of coma. Patients showing the same, present medical emergencies and should be treated as such. The nitroprusside test for acetone detects these substances when they are present in but minute amounts. Hence patients with a negative ferric chloride test but a positive nitroprusside reaction are in no immediate danger, but they do harbor a grossly disordered metabolism.

All diabetics can utilize or tolerate some glucose. The degree of their inadequacy allows us for practical therapeutic purposes to classify them as mild, moderately severe, or severe cases; and consequently, it governs the ease or difficulty with which the derangement may be restored to a semblance of normal.

A mild diabetic<sup>4</sup> usually shows both glucose and acetone in the urine; a slightly elevated fasting blood sugar (from 150-250 mgs. percent.); but a normal alkali reserve figure (50-80 vol. percent.). A moderately severe diabetic<sup>4</sup> reveals sugar, acetone, and, in addition, diacetic acid in the urine; a moderately elevated fasting blood sugar (from 250-400 mgs. percent.); and a moderate degree of acidosis, i.e., an alkali reserve figure of 40 and over. A severe diabetic<sup>4</sup> differs from the others in the

greater height of the fasting blood sugar (from 400-1200 mgs. percent.); and in the greater degree of acidosis, i.e., an alkali reserve figure from 40-30. Impending coma<sup>4</sup> is recognized to be present when the alkali reserve figure is below 30. Incipient or early diabetes,<sup>4</sup> on the other extreme, is present when the urine betrays occasional traces of sugar; the fasting blood, a slight elevation of its glucose (up to 150 mgs. percent.); and the dextrose tolerance test, a diabetic type of curve.

The metabolism of a diabetic may be judged to be functioning in a controlled manner<sup>12</sup> when the fasting blood sugar and alkali reserve figures are normal, when the urine is always free of acetone bodies, when the waste of glycosuria has been reduced to a minimum compatible with freedom from hypoglycemic attacks; and clinically, when the patient enjoys a degree of health and energy adequate to the requirements of his activities. This aim can be achieved by the appropriate use of diet alone in mild cases, and of diet and insulin in the severer ones.

#### *Factors Governing Carbohydrate Tolerance*

It is readily realizable that deficient carbohydrate tolerance is really the crux of the problem of diabetes. Hence it becomes important to inquire into factors which modify this tolerance, for fortunately, it would appear that tolerance in a diabetic is an alterable condition. Insulin, as we all know, raises it; exercise appears to do the same, for the amount of insulin needed to control the patient in bed is much greater than that required when the patient becomes ambulatory. It is further known "that the susceptibility<sup>12</sup> of the body to the action of insulin varies at different times of the day, being least at breakfast, more marked in the evening, and most marked in the middle of the day." Finally, it is also well known that some diabetics, after they have been under control for several weeks or months, appear to recover some of the lost function of the pancreas, so that they may thereafter get along on diet alone, or on much smaller doses of insulin and a more liberal diet than was formerly feasible.

There are, however, factors which decrease the tolerance and thus aggravate the disease. Joslin stresses the fact that obesity predisposes to diabetes, and he finds that his patients do better if they are kept slightly underweight. Infection, etherization, or pregnancy may serve to plunge an otherwise

controlled diabetic into acidosis; and in these conditions it is found that much larger amounts of insulin are needed for effect, than would otherwise be necessary.

The thyroid, the pituitary,<sup>11</sup> the hypothalamus, and the basal ganglia would also appear to have some effect on carbohydrate tolerance. Thus in hyperthyroidism one gets a decreased tolerance, and consequently, an increased fasting blood sugar, which simulates that of a mild diabetes. When the pituitary gland<sup>11</sup> is removed in a depancreatized dog, the severity of the diabetes is thereby very much lessened. Removal, however, of the adrenal<sup>11</sup> does the same for the depancreatized cat. Hence there remains still much to be learned about this fascinating subject of carbohydrate tolerance.

#### *Dietary Considerations*

According to Joslin,<sup>10</sup> there are approximately five hundred thousand individuals with diabetes in the United States, although some of these may not know that they have the disease. Some three hundred thousand, or sixty percent., are mild cases; one hundred seventy-five thousand, or thirty-five percent., moderately severe; and only twenty-five thousand, or five percent., severe cases. The fact that the greatest percentage of the diabetics are in the mild and moderately severe groups makes the treatment of diabetes with diet and insulin a hopeful affair.

Thus in this day, "insulin has raised the expectancy of the lives of diabetic children from one to thirty-two years; it has practically abolished coma; and has doubled the duration of the disease for all diabetics."<sup>10</sup>

Before insulin, treatment of diabetes rested on diet alone. The mild diabetic managed fairly well; the severe case died in acidosis. The moderately severe diabetic just managed to eke out an hazardous existence. Most were always underfed, and consequently, unable to take an active, useful role in society. All were constantly in imminent danger from pregnancy, surgical operation, or infection of any sort.

The principle upon which the dietetic treatment revolved was based on a quantitative reduction of the total daily food intake as well as a quantitative rearrangement of its basic constituents (the carbohydrate, protein, fat) to such an extent, as to bring it within the limits of a lowered carbohydrate tolerance. When this is done, the

body theoretically is called upon to oxidize only that amount of carbohydrate compatible with the degree of Islet dysfunction; consequently, there is no waste of glucose in the urine, the metabolism of fats and proteins proceeds to an end result, without the formation of any intermediate ketone bodies; furthermore, under such a regime the pancreas may recover some portion of its lost function.

These results, such as they were, could be accomplished of necessity only by abnormal diets, diets which were low in carbohydrates, low in total calories, and low in protein and ratioed fat. The introduction of insulin and its raising of carbohydrate tolerance allowed of higher carbohydrate diets, so that at the present time, these approximate those of healthy individuals; thus in Great Britain medical opinion<sup>12</sup> is rapidly accepting a two thousand calorie diet, of a type containing two hundred grams of carbohydrate with the proportion: carbohydrate 2, protein 1, and fat 1.

Such a diet is, of course, more convenient, more palatable, and increases the patient's subjective sensations of health and energy. According to Himsworth,<sup>12</sup> it renders the patient less liable to relapse and militates against the development of arteriosclerosis. With this view Rabinowitch and others are in accord. The seemingly theoretical objection, moreover, that proportionate increase in insulin dosage<sup>12</sup> would be required, is not borne out in practice; for only infrequently are a few more units necessary. These high carbohydrate diets have, it would seem, come to stay.

#### *Insulin*

What, we may ask ourselves, are the indications for the use of insulin? They can be stated quite precisely.<sup>12</sup> It must be given immediately to those whose urine contains enough ketone bodies to give a positive ferric chloride test; moreover, its administration must then be maintained at two hour intervals until the acidosis has been controlled, as determined by negative urine for a consecutive four to six hours, along with normal values for blood glucose and alkali reserve figures. It must be given, also, to those who, after a four day trial on a modern diabetic diet, pass urine which in the majority of specimens gives a positive nitroprusside test. It must be given, finally, to those who after a two weeks' period of dietetic treatment continue to show sugar in all urine specimens.

In these diabetics, thereafter, in their continued treatment, the dose of insulin may be systematically

altered up or down yet in tune with the requirements of a perfectly adequate nutrition and of a controlled metabolism. Nearly all patients<sup>12</sup> who first become aware of diabetes before middle age will require insulin within a period of two years; of those who acquire the disease in later life, about one-half will require insulin.

Let us submit to a critical eye the results achieved during the past sixteen years by the modern treatment of diabetes; and thus see what has been the accomplishment of scientific dietetics aided and abetted by insulin. The mild diabetics have been successfully carried along without insulin on a diet approximately normal. The severer cases<sup>12</sup> have required insulin in one, two, three, or even four doses a day, but at night they have still remained virtually uncontrolled.

The inability to control the severer cases during the night arises from the characteristic manner of action of regular insulin; that is, from its comparatively rapid, powerful, but transient effect. Large doses reduce the blood sugar to an undesirable hypoglycemia in from two to three hours, and yet practically lose all their physiologic action at the end of six hours.<sup>12</sup> Contrast this with the wondrously labile and delicate control exercised by the normal human organism, which, apparently governed by the level of the glucose in the blood, adds just the desired amount of insulin, be the need for it sudden and great, or but constant and small.

#### *Protamine Insulin*

Numerous investigators have appreciated the marked discrepancy between the action of normal pancreatic islands and that of injected regular insulin; and consequently, have sought to refine this obviously crude action by changing insulin itself. Finally, Hagedorn in 1936,<sup>12</sup> after many trials, hit upon a combination of insulin with a protamine from fish sperm, which at the hydrogen ion concentration of the body tissues would deliver insulin from a subcutaneous depot at a much slower rate. Scott<sup>12</sup> made still further modification by the addition of minute, non-toxic<sup>13</sup> amounts of zinc to protamine insulin, and found that his preparation would show its greatest effect in eight to fifteen hours as compared with protamine insulins of six to ten hours.

These new preparations have been since submitted to clinical trial by various groups of leading investigators, such as Joslin of Boston, Rabinowitch

of Montreal, Wilder of the Mayo Clinic, and Himsworth of London; and have earned enthusiastic approval within certain definite limits.

Himsworth,<sup>12</sup> by comparing the action in the same patient of these preparations, found that under conditions where regular insulin would exert its maximum effect in two to three hours after injection, protamine insulin would show its maximum in six to ten hours and have worn off in twelve to eighteen hours; whereas zinc protamine insulin would show its greatest effect in eight to fifteen hours and still be rendering some service after twenty-four to thirty hours.

#### *Advantages and Disadvantages*

Accordingly, Himsworth<sup>12</sup> promulgates certain advantages and disadvantages which should be taken into account in any technique for their use. The prolongation of action allows of a reduction in the number of doses, and if either preparation be given in the late afternoon, it will effectively control the disease throughout the night. The longer acting zinc preparation will, at times in severer cases, do this better than the protamine insulin. Another salutary feature arises from the slowness with which the blood sugar is reduced; this action renders less likely the hypoglycemic attacks which frequently follow regular insulin when the latter's action has been potentiated by unusual exertion or exercise.

The very characteristics, though, that make feasible the above advantages, when not properly appreciated and applied, give rise to two distinct disadvantages. The first is the persistence and severity of the hypoglycemic attacks. These usually burst on the patient without warning, because the reduction of blood sugar has been so gradual as to produce no symptoms until the level reached is a dangerously low one. Moreover, because of the persistence of the action, it takes repeated and larger doses of carbohydrate to combat the attacks and to prevent relapses thereafter. The young are most susceptible to these hypoglycemic reactions; the aged, most free from them. The second disadvantage arises from the slowness with which these preparations swing into action. Thus they fail when given as a single pre-breakfast dose to prevent the glycosuria due to the rapid influx of glucose from the morning meal; injection of doses large enough to control such glycosuria invariably leads to hypoglycemic reactions in the night. Rec-



ognition of this, however, has resulted in the perfection of an appropriate technique.

#### *Administration*

Hagedorn and Krarup,<sup>7</sup> using the moderately slow acting protamine insulin, attempt to control only mild cases with a single daily dose. In the severer cases, they give the protamine insulin in the afternoon, thus holding the disease during the early evening and through the night; the next morning, the protamine effect still persisting, they add a dose of regular insulin, to take care of the rapid, post-breakfast glucose rise. This dose of regular insulin is considerably less than that necessary on a two dose regime of regular insulin. If the preceding modification still continues unsuccessful, they go further and rearrange the carbohydrate of the diet, so that breakfast contains twenty percent.; lunch, thirty percent.; tea, ten percent.; and dinner, forty percent.

The technique with the slowest acting preparation, zinc protamine insulin, is different still.<sup>12</sup> It has been worked out largely by the Canadians, Rabinowitch and Campbell, and in the United States by Lawrence and Archer. It consists of an initial pre-breakfast dose of the new preparation, plus a small dose of regular insulin. The combined dose is usually equivalent to the total daily requirements of the patient for regular insulin, and may, with proper precautions against mixing, be delivered as a single injection. The ordinary insulin controls the post-breakfast rise of glucose and has dissipated by the time that protamine zinc insulin is swinging into full effect; that is, about the time of the noon and evening meals. The effect, continuing as it does into the following morning, also holds the disease during the night, and makes the dose of regular insulin needed to control the post-breakfast rise a small one. Because of the fact that it may take several days for full therapeutic effects to be manifest, one should not increase or decrease doses by more than five units at two to three day intervals while seeking the optimum dosage. Also, in maintaining a proper balance, it may be necessary to re-apportion the carbohydrate of the diet, as heretofore mentioned, in order to lessen the carbohydrate load at the time of day when it is not well borne, and shift it to periods when it can be more readily utilized. It may even be desirable, in some instances, to give small amounts of food between meals or at bed time.

Himsworth<sup>12</sup> lists the following indications for the use of protamine and zinc protamine insulins: in cases where regular insulin has failed to control nocturnal glycosuria; where exercise is especially liable to produce hypoglycemia; and where the reduction of the number of injections is desired.

It is to be noted, in closing, that these slow acting insulins are not suited for the treatment of coma or states of severe acidosis where prompt action is required.

#### REFERENCES

1. Clendening: Behind the Doctor.
2. Major: Classic Descriptions of Disease.
3. McCrae: Osler's Theory and Practice of Medicine, 11th Ed.
4. Osgood and Haskins: Laboratory Diagnosis.
5. Barborka: Diet in the Treatment of Disease.
6. Allan, F. N.: Treatment of Diabetes by Diet, History of. Jour. of Amer. Dietetic Assoc., Vol. VI, No. 1, June 1930.
7. Hagedorn et al.: Protamine Insulin, J.A.M.A. 106: 177, 1936.
8. Root, et al.: Clinical Experiences with Protamine Insulin, J.A.M.A. 106: 180, 1936.
9. Wilder, et al.: Clinical Observations with Insulin Protamine Compounds, J.A.M.A. 106: 1701, 1936.
10. Joslin: Protamine Insulin, Med. Cl. N. A., March 1937, Boston.
11. Root, H. F.: Trauma, Physical and Psychic, and Diabetes, Med. Cl. N. A., March 1937, Boston.
12. Himsworth: Protamine Insulin and Zinc Protamine Insulin in Treatment of Diabetes, Brit. Med. J., March 13, 1937, p. 541.
13. Bell & Howe: Protamine Insulin (unpublished).

#### SPONTANEOUS SUBARACHNOID HEMORRHAGE

CHARLES A. McDONALD, M.D.

106 WATERMAN STREET, PROVIDENCE, R. I.

AND

MILTON KORB

RESEARCH ASSOCIATE

We are reporting seven cases of Spontaneous Subarachnoid Hemorrhage. This disease is characterized by the sudden onset of apoplectiform headache, mild stiffness of the neck, double Kernig's sign, a bit of fever, and bloody spinal fluid. Although Samuel Wilks, in 1859, first applied the term "spontaneous" to such "sanguineous meningeal effusions," the first clear description of the clinical syndrome was given by Byron Bramwell in 1886. With the advent of lumbar puncture done more routinely in cases with head signs there has been in the last few years a greater orientation to this condition and the recognition of many more

cases. The bloody effusion in the subarachnoid space comes from a ruptured aneurysm of one of the arteries at the base of the brain. The literature contains many reports on the disease, Spontaneous Subarachnoid Hemorrhage. It is not infrequent; recently we had four cases under observation at the same time. Of the cases here reported two are given in detail and five in brief:

*Patient No. 1:* M. G., a moderately obese, forty-three-year-old, married, Jewish salesman was seen in consultation with Dr. Garside on March 7, 1937, and sent to the Charles V. Chapin Hospital the following day.

He had never been ill till one week before admission, when he was seized during coitus by a severe occipital pain radiating up into his head and down into his thighs. He drove to a doctor's office; on the way he vomited and felt better. The pain in the head persisted, and when first seen by Dr. Garside, four days later, there was fever, diminution of deep reflexes, and a slightly positive Kernig's sign. He was becoming weaker and was unsteady in gait. There was no hypertension, no convulsions or blurring of vision.

On the seventh day, the day of the consultation, the patient had severe headache, stiff neck, a double Kernig, blurred disks without hemorrhages, absent patellar, biceps, and abdominal reflexes. Sensorium was clear.

On admission to the hospital he showed bloody spinal fluid, which had 23,700 red cells per cu.mm., a pressure of 570 mm. water, negative Wassermann, and was sterile on culture. The blood Wassermann and Hinton were negative. Urine had a heavy trace of albumen, a few red and white cells, and no casts. After the first lumbar puncture, the patient got great relief, and on subsequent lumbar punctures red cells and headache gradually decreased. The spinal fluid had 10,000 red cells on the second day in the hospital, 12,500 on the third day, 4,000 on the sixth day. On the thirteenth day he left the hospital without headache, without mental signs, and with a slight left facial weakness as the only nerve complaint.

This patient showed the typical clinical syndrome of SPONTANEOUS SUBARACHNOID HEMORRHAGE: (1) sudden severe headache, (2) mild neck sign, (3) moderate double Kernig, (4) a bit of fever, (5) bloody spinal fluid.

*Patient No. 2:* A. W., a thirty-two-year-old, husky, married, Irish-American cost-estimator was

admitted to the Charles V. Chapin Hospital on February 13, 1937, and was seen in consultation with Dr. Kiene at that hospital on February 24.

As a young man he had been successful and his past history showed no illnesses excepting a foul ear discharge, which had persisted since thirteen years of age, at which time he had broken his right ear drum while diving.

The night before admission he went to bed well. At one-thirty his wife was wakened by the patient's loud snoring, which became stertorous, deep, and regular. He was staring into space, frothing at the mouth, snorting through the nose, and could not be aroused to consciousness. He thrashed around in bed so violently that he had to be lowered onto the floor, where he continued to grovel. His violence was becoming so great that he was sent to the Psychopathic Ward of the Charles V. Chapin Hospital.

A short time after admission he was more conscious and complained of pain in his head, intermittent and accompanied by restlessness. His neck was stiff; Kernig's sign was not noted; the spinal fluid was bloody, with a red cell count of 450,000/cu.mm., a pressure of 200 mm. of water, and a negative Wassermann. He was sweating profusely and vomited brown-black material. The pulse was full and slow (60), temperature 99.4, respirations 22, blood pressure 130/90. The reflexes were equal and active, with absent abdominals and bilateral Babinskis. Blood Wassermann and Hinton were negative; the urine had a 2-plus sugar reaction and a heavy trace of albumen. On the third day he was considerably improved; the spinal fluid had 145,000 red cells/cu.mm. His neck was still stiff; but the abdominal reflexes were lively, although the positive Babinski persisted on the right. On the fourth day the spinal fluid red count had dropped to 48,000. On the sixth day the fundi showed only congestion and edema of the periphery of the retina. He was still restless and confused on the seventh day, when the spinal fluid red count had dropped to 24,000. On the ninth day he was less drowsy but failed to answer questions. He recognized objects but couldn't name them. He would take a pencil into his left hand and make aimless and grotesque lines. He knew how to light and what to do with a cigarette but would not or could not mention its name. There was a right hemiplegia with aphasia; the leg was more spastic than the arm, and the face was only slightly involved. Right abdominal reflexes were absent, and there was a Babinski on the right. The

neck was still stiff. On the tenth day the fundi were normal, the right hemiplegia was complete, but the spinal fluid was xanthochromic with only 44 red cells/cu.mm. and a pressure of 50 mm. water. He was still confused, saying only "yes" and "no." The aphasia persisted, and on the twenty-fifth day there was a convulsion, more marked on the left side, with generalized rigidity, vomiting, defecation, micturition, and profuse perspiration. The spinal fluid had 500 red cells/cu.mm. and a pressure of 240 mm. water. One-half hour after the convulsion the pulse was 90 and the blood pressure 128/76. Within the next hour there were two more convulsions accompanied by stertorous Cheyne-Stokes respirations and a weak pulse. Though at first comatose, he improved after the removal of 10 cc. of bloody spinal fluid but soon returned to a stuporous state. He went downhill rapidly thereafter. On the twenty-sixth day there was projectile bilious vomiting. The right hemiplegia persisted. On the thirtieth day he became stuporous. The spinal fluid was again very bloody, with 100,500 red cells/cu.mm. and a pressure of 500 mm. water. The pulse was 104 and the temperature 102.4. The temperature reached 107.6 on the thirty-second day, the spinal fluid red count was 100,200/cu.mm., and he died.

This patient showed headache of sudden onset, with vomiting, a stiff neck, and a bloody spinal fluid, giving the syndrome of SUBARACHNOID HEMORRHAGE.

At autopsy there was a ruptured aneurysm of the anterior communicating artery at the junction with the left anterior cerebral artery.

*Patient No. 3:* W. F., a thirteen-year-old, white, American schoolboy entered St. Joseph's Hospital January 30, 1937, on the service of Dr. Jordan with Dr. McCaffrey and Dr. McDonald consulting. A diagnosis of "Subarachnoid Hemorrhage" was made on the patient, who had had good health previously. While in the hospital the patient vomited without nausea. Blood pressure was 110/60. He looked sick. Bilateral Kernig. Spinal fluid bloody. Vision and fundi normal. Blood Wassermann negative. Urine had 1-plus sugar and positive reaction for acetone. Recovery after spinal fluid drainage. Home on 35th day.

*Patient No. 4:* J. P. S., a thirty-three-year-old, Irish-American bookkeeper. In good health. While taking shower seized with dizziness, became unconscious, and fell. Day before had been a bit dizzy

with "funny feeling" in head. Blood pressure 116/90. Blood Wassermann negative. Blood sugar normal. Later convulsions and hemiplegia. Spinal fluid showed large amount of blood. Urine negative. Coma increased. Spinal fluid continued to be bloody. Death on second day of sickness.

*Patient No. 5:* F. P., a forty-seven-year-old, French-Irishman. Enjoyed good health. Ate big breakfast and walked to work. In his office slumped and fell to floor. Patient in coma, showed stiff neck, double Kernig, some fever, negative fundi, moderately elevated blood pressure. Urine not abnormal. Spinal fluid under terrific pressure. Death day of attack.

*Patient No. 6:* E. G., a twenty-one-year-old, unmarried, female, bookkeeper. Admitted to Woonsocket Hospital. Dr. Rocheleau and Dr. McDonald consulting made a diagnosis of "Subarachnoid Hemorrhage." On day of admission had headache, unconsciousness, and vomiting. Moderate stiffness of neck, double Kernig. Blood pressure 110/80. Urine albumen 3-plus. Bloody spinal fluid. After several spinal taps blood decreased, comfort increased. Patient discharged, well.

*Patient No. 7:* M. McC., a thirty-three-year-old unmarried, female housekeeper. Had not felt well for some time with an occasional weak spell. Good general practitioner, who had treated her for some time for various complaints including headache, found no definite disease. While drinking at soda fountain, fell. Became unconscious and remained so. When seen in consultation had blurred disks, stiff neck, Kernig's sign. Bloody spinal fluid. Death next day without regaining consciousness.

#### Discussion

These cases are selected and reported to call attention to the frequency of the disease and its occurrence in patients without arteriosclerosis with hypertension, or neoplastic or anemic disease which bleeds. Four of the patients died and three recovered. Their respective ages were 32, 33, 33, 47, 13, 21, and 43 years. None of them were known to be sick before the apoplexy. All of them showed symptoms and signs which led to recognition of the disease during life.

#### Conclusion

SPONTANEOUS SUBARACHNOID HEMORRHAGE is not an uncommon condition and can be readily recognized by the syndrome of sudden severe headache, stiffness of the neck, double Kernig's sign, a bit of fever, and a bloody spinal fluid.

## THE RHODE ISLAND MEDICAL JOURNAL



Medical Library Building  
106 Francis Street, Providence, R. I.

ALBERT H. MILLER, M.D., *Editor*  
28 Everett Avenue, Providence, R. I.

CREIGHTON W. SKELTON, M.D., *Business Manager*

*Associate Editors*

WILLIAM P. BUFFUM, M.D. JOHN C. HAM, M.D.  
ALEX. M. BURGESS, M.D. THAD. A. KROLICKI, M.D.  
FRANCIS H. CHAFEE, M.D. EDWARD V. MURPHY, M.D.  
HENRI E. GAUTHIER, M.D. MALFORD W. THEWLIS, M.D.  
GEORGE L. YOUNG, M.D.

### AMERICAN MEDICINE—EXPERT TESTIMONY OUT OF COURT

Every practitioner of medicine is aware that as a part of general unrest and dissatisfaction with much of the social and economic life of the country there is specific criticism of the present status of medical practice. Most of the profession are more or less familiar with the inquiry as to the costs of medical care. Now there is presented a new and quite different kind of report by the American Foundation. This inquiry was undertaken as a part of the Foundation's Studies in Government, their particular concern being the relation of government to health—"with no assumption either that government should or should not play a larger part than it now plays."

As an initial step in the study of this question a wide appeal was made to the medical profession. In essence the inquiry addressed to individual physicians was as follows: "Has your experience led you to believe that a radical reorganization of medical care in this country is indicated? If so, in what direction? If you do not believe that radical reorganization is indicated, what, if any, changes or re-

visions in the present system would you like to see made? What evolutionary possibilities would you stress?" The letter containing this inquiry was sent to physicians in all parts of the United States and the large two-volume report is founded entirely on their answers. The intention was to make the replies really representative of the whole profession. It would appear that that result has been achieved, as general practitioners, specialists, teachers and public health officials are well represented; in fact, 289 general practitioners and 305 clinical professors are found among the contributors.

While the report cannot be said to have brought to light anything like a unanimity of opinion on any of the subjects which are involved it does yield certain very valuable results. Of these we may pick out a few which will, perhaps, stimulate readers of the JOURNAL to consult the report itself. In the first place, although there is no general agreement on what constitutes "adequate" medical care, the weight of opinion is certainly that such care is by no means available to all the American people. Among the reasons for this are (1) that it costs too much, (2) that it is in many instances too far away, especially in certain Western and Southern States, (3) that the public generally does not understand or desire it, preferring quacks, cults and patent medicines, and (4) that medical training and post graduate instruction must be improved before it can be considered really adequate. The sections on Medical Education, Specialization and Group Practice are very illuminating. As to *State Medicine*, it is quite evident from the replies that any really thorough-going system, i.e., government paid and controlled physicians, would be more than inadequate and would involve the likelihood of political control, the loss of efficiency and the destruction of the "doctor-patient" relationship, the importance of which as a real therapeutic factor is stressed in many of the letters. In the same way it is evident that a plan for *compulsory health insurance*, which after all touches only the economic side of the problem, cannot be considered as an adequate solution. It cannot answer the needs of the actually indigent or the special problems of the rural or farming communities nor does it concern itself at all with the *quality* or adequacy of the medical care provided, nor with questions of preventive medicine. A plan for *Limited State Medicine*, integrated with private practice without encroaching upon it, developing the principle that community health as a whole



is chiefly the concern of the State whereas the problem of the individual belongs to the practicing physician; a plan also with added provisions for tax support for hospitals generally and the establishment of a *Federal Department of Health* seems to be the most constructive idea that one can extract from the mass of varying opinions that are given in the report.

### MUSCULAR CONTROL

Again the popular publications, *Time* and *Life* (April 5 and 12, respectively) have called attention to, and excellently presented, a subject that should be of intense interest to the medical profession. It is a subject that has been sadly neglected or at least advanced with but unsatisfactory results in general. We refer to postural development. The above mentioned articles present some of the principles of the Mensendieck system of exercises for improving posture and grace. Anyone who interests himself in the matter cannot but be struck by the fact that the posture of a large percentage of young adults is poor, frequently little short of abominable.

Schools and colleges today are emphasizing the importance of training the body as well as the mind. The long-standing tendency to give dumb-bell or weight-pulling or similar exercises still persists. These are frequently given for the purpose of strengthening the muscles used in some specialized form of athletics without careful attention to the muscles used in normal activity. While athletics certainly serve a useful purpose, we are destined to spend a good deal of our life standing, sitting, walking and going through various relatively quiet motions in pursuit of a living. But how many of us know how to do these things in a manner that holds the various elements of our frame in the proper relationship one to the other? Very few. These exercises frequently result in the over-development of certain muscles, thus producing an improperly coordinated whole. Such muscles soon become flabby and serve little useful purpose when the individual leaves his or her physically active life in favor of the less athletic post-academic career.

There are many factors that work against the body's demand for a properly balanced structure. Not the least of these is the tendency so many of us

have to be careless of our posture, in fact frequently to develop intentionally a nonchalant slouch or lordotic stance. These are anything but conducive to good postural development. What good can exercises performed for a period of but an hour or so do if we spend the rest of our fourteen to sixteen waking hours in putting our bodies through all sorts of disadvantageous positions? It is no wonder that so many men and women of middle age find their bodies unequal to the task of comfortably and efficiently housing the vital organs, these organs that have otherwise been put to many severe tests by the abuses the ordinary person throws upon them.

The human body with its erect bipedal posture and its intricate opposing sets of muscles is a unique problem in mechanics. Upon it we depend largely for our conquests over the other elements of nature. It is given us to do what we will with it. What most of us do is insult it repeatedly and then wonder in our middle age why it causes us so much fatigue and pain. We make little attempt to learn how to use the muscles provided for keeping the various structures in the proper alignment to establish and to maintain the necessary line of weight-bearing. In fact few of us ever consider seriously that such a training is particularly valuable. The body is taken for granted and our time is spent in trying to adjust our environment to our liking. But it is true and, when we stop to think about it, obvious that properly to balance such a complex system demands a certain amount of careful training. The proper tonus must be maintained between these opposing sets of muscles in order to diminish wear and tear on the innumerable working parts of our well integrated skeletal system and to keep our internal organs in the optimal relationships. True, the human form will stand a remarkable amount of punishment, but it can return this with interest when maltreated. For this we cannot blame it.

Dr. Mensendieck has long appreciated the necessity of giving the body a chance. Her system of exercises is based on learning to control and to use to advantage many muscles that most of us do not realize exist, except that we once learned them in anatomy. To learn the system requires considerable training and drilling, but strenuous exertion is avoided. Once learned, the use of these muscles can readily become second nature, be made a part of our daily activities throughout life. While we are carrying on our normal activities, we are at the same time doing our exercises, subconsciously keeping our bodies fit supporters for our inner struc-

Mensendieck: System of Functional Exercises, Southworth-Anthoensen, Portland, Maine.

tures. These exercises are chiefly designed to promote grace, but grace is essentially dependent on rhythmically coordinated movements. This is another way of saying that grace is a labor-saving device designed to get the most out of the body with the least expenditure of energy. The graceful body should last longer. A more general application of such a system in institutions dealing with youth and a better example set by the various means at our disposal should pay good returns in diminishing future suffering. But the training should not be confined to youth; adults can also benefit from it.

### LATIN FLOWERS OF MEDICINE

Sulzberger and Wise, in October, 1932, published an article with the heading, "Lymphopathia Venereum."<sup>1</sup> The same authors, shortly after, regretted what they called the mistake of putting together a feminine noun with a neuter adjective and said that the proper heading should have been "Lymphopathia Venerea," in order to have the adjective agree with the feminine noun.<sup>2</sup> Since then a number of articles have appeared with the corrected heading, "Lymphopathia Venerea,"<sup>3</sup> but others have persisted in using the title, "Lymphopathia Venereum."<sup>4</sup> "Lymphopathia Venereum" is still listed in the Quarterly Index Medicus. Waintraub quotes Neisser as the creator of the flower "Leukoderma Syphilitica" and says, without comment, that the above heading has been freely used in Germany and it is still used by English dermatologists.<sup>5</sup>

American editors have the reputation of going over every word and every letter in any foreign language and of correcting anything that may have escaped the attention of the author. European editors have not such a reputation, probably because they cannot afford the expense of a highly trained editorial staff. In this particular instance the memory of elementary Latin seems to have completely vanished.

1. The Journal A. M. A., 99, 17, 1407, Oct. 22, 1932.

2. Idem., 99, 22, 1880, Nov. 26, 1932.

3. Trans. Am. Proct. Soc., 1934, p. 150. Southwest Med., 19, p. 103. Cal. & West. Med., 42 p. 176. Texas State Med. Jour., 29, p. 192.

4. Urol. & Cut. Review, 37, p. 786, Nov. 1933. Am. Jour. Med. Sc., 190, p. 178, August, 1935. Surg. Gyn. & Obs., 62, p. 745, April, 1936. The Journal A. M. A., 106, p. 1869, May 30, 1936. Ann. Surg., 104, p. 279, August, 1936.

5. Annales des Maladies Veneriennes, 32, p. 81, Feb. 1937.

### PROVIDENCE MEDICAL ASSOCIATION

#### Minutes of the May Meeting

The regular monthly meeting of the Providence Medical Association was called to order by the President, Dr. Peter Pineo Chase, on Monday, May 3, 1937, at 8:35 P. M. The minutes of the last meeting were read and accepted.

The Standing Committee having approved his application, Dr. James Thomas Fallon was elected a member of the Providence Medical Association.

Dr. H. G. Partridge read an obituary of the late Dr. James H. Akers. It was voted to spread this on the records and to send a copy to the family.

The first paper of the evening was by Dr. George A. Moore, of Brockton, Massachusetts, who spoke on "Intestinal Tuberculosis." The paper was discussed by Dr. Edwin D. Gardner of New Bedford, Massachusetts, and by Dr. Gerber.

Dr. Richard H. Miller, Clinical Professor of Surgery at Harvard Medical School, was prevented from giving his paper because of injuries received in an automobile accident. The second paper of the evening, therefore, was presented by Dr. Alex. M. Burgess, who spoke on "The Use of 98% Oxygen in Gaseous Distension of the Intestine Especially in Pneumonia." The paper was discussed by Doctors John F. Kenney and Benjamin.

Dr. Roland Hammond then demonstrated a new method of strapping fractured ribs.

The meeting adjourned at 10:10 P. M. Attendance, 132. Collation was served.

Respectfully submitted,

HERMAN A. LAWSON, M.D.,  
Secretary

### The American Board of Surgery

In answer to the widespread demand for an agency which will attempt to certify competent surgeons, the American Board of Surgery has recently been organized.

The following have been chosen as the members of the Board: Dr. Evarts A. Graham, Dr. Arthur W. Elting, Dr. Allen O. Whipple, representing the American Surgical Association; Dr. Donald Guthrie, Dr. Erwin R. Schmidt, Dr. Harvey B. Stone, representing the American College of Surgeons; Dr. Fred W. Rankin, Dr. Howard M. Clute, Dr. J. Stewart Rodman, representing the Surgical Section of the A. M. A.; Dr. Philemon E. Truesdale,

representing the New England Surgical Society; Dr. Thomas Orr, representing the Western Surgical Association; Dr. Robert Payne, representing the Southern Surgical Association; Dr. Thomas Joyce, representing the Pacific Coast Surgical Association. The following officers have been elected: Chairman, Dr. Evarts A. Graham; Vice-Chairman, Dr. Allen O. Whipple; Secretary-Treasurer, Dr. J. Stewart Rodman.

Two groups of candidates are recognized for qualification by the Board: (a) Those who have already amply demonstrated their fitness as trained specialists in surgery. (b) Those who, having met the general and special requirements exacted by the Board, successfully pass its qualifying examination.

The first of these groups, the Founders Group, upon invitation by the Board, will be chosen from the following: (1) Professors and Associate Professors of Surgery in approved medical schools in the United States and Canada. (2) Those who for fifteen years prior to the Board's organization have limited their practice to surgery. (3) Members of the American Surgical Association, the Southern Surgical Association, the Western Surgical Association, the Pacific Coast Surgical Association and the New England Surgical Society, who are in good standing January 9, 1937. All applications for the Founders Group must be received within two years of the Board's organization, January 9, 1937. No candidates for the Founders Group will be considered after that date.

Requirements for those to be qualified by examination will be as follows: (1) Graduation from a medical school of the United States or Canada recognized by the Council on Medical Education and Hospitals of the A. M. A. or graduation from an approved foreign school. (2) Completion of an internship of not less than one year in a hospital approved by the same Council, or its equivalent in the opinion of the Board. (3) *Special Training.* A further period of graduate work of not less than three years devoted to surgery taken in a recognized graduate school of medicine or in a hospital or under the sponsorship accredited by the American Board of Surgery for the training of surgeons. This period of special training shall be of such character that the relation of the basic sciences of anatomy, physiology, pathology, bacteriology and biochemistry is emphasized. Knowledge of these sciences as applied to clinical surgery will be required in the examination. Adequate operative experience in which the candidate has assumed the whole respon-

sibility will be required. An additional period of not less than two years of study or practice in surgery. (4) The candidate must present to the Board sufficient evidence of good moral character as to justify it in the belief that he will not engage in fee splitting and other dishonest practices.

The qualifying examination will be divided into two parts: Part I, written, and Part II, clinical, bedside and practical. The written part, Part I, will concern itself with general surgical problems and with the clinical application of the basic sciences of surgery to these problems. This examination will cover a period of three hours each and will be held simultaneously in as many centers as are necessary to accommodate the number of applicants who are eligible. Part II is entirely oral and will also concern itself, in the main, with general surgery and, as stated for Part I, clinical application of the basic sciences to the clinical problem represented. In addition to this, in Part II an examination will be given to test the candidate's knowledge of operative surgery, X-ray plate interpretation and the principles and application of surgical anesthesia. This examination will be held in as many centers as the Board may determine necessary to accommodate the eligible candidates. Re-examinations will be allowed, provided one year shall elapse between examinations.

The fee for Group A, the Founders Group, will be \$25. The fee for Group B will be \$75, payable as follows: \$5 for registration fee, which shall be returned if the candidate is not accepted for examination; \$20 for Part I; and \$50 for Part II. The same fee will be required for each re-examination. Once the candidate has become qualified, he will have no further financial obligation to the Board.

The Board will hold its first examination on September 20, 1937. Requests for application blanks and other information should be addressed to the Secretary, Dr. J. Stewart Rodman, 225 South 15th Street, Philadelphia, Pennsylvania.

---

The American Board of Ophthalmology will conduct an examination in Philadelphia, June 7, 1937; Chicago, October 9, 1937. All applications and case reports, in duplicate, must be filed at least sixty days before the date of examination with John Green, M.D., Secretary, 3720 Washington Boulevard, St. Louis, Mo.

### RHODE ISLAND SOCIETY FOR NEUROLOGY AND PSYCHIATRY

#### Minutes of the April Meeting

The April meeting of the Rhode Island Society for Neurology and Psychiatry was held at the John M. Peters House, Rhode Island Hospital, on April 12, 1937. The meeting was called to order at 8:40 P. M. by the President, Dr. Jerome J. McCaffrey. The minutes of the last meeting were read and approved. The application of Dr. H. W. Williams having been approved by the Standing Committee, he was elected to membership.

The first paper of the evening was presented by Dr. C. C. Hare, of New York City, Assistant in Neurology in the Neurological Institute and Associate Professor of Psychiatry at Columbia University. His subject was, "Metastatic Involvement of the Brain."

Dr. Hare gave a careful and complete analysis of cases which had been studied recently at the Neurological Institute. He presented his data from many angles. He considered the symptoms, the lesions, and the foci of the original tumor. Lantern slides were presented of the tissues, showing particularly the relation of the tumor to brain tissues, the metastases often being at the junction of the white and gray substances. He stressed that frequently malignancies of the lungs or bronchi were accompanied by brain metastasis. The diagnosis was often difficult, this difficulty being increased by multiple tumors. While several in the series had been operated upon, Dr. Hare felt that, with a fairly definite diagnosis, operative treatment was not to be particularly considered.

Dr. Hare's paper was so complete that any abstract is quite unsatisfactory. His paper was discussed by Dr. Nichols, Dr. C. A. McDonald, Dr. Philip Solomon, and Dr. W. N. Hughes, who pointed out the value of the paper, hoping that it would be published and then would be available for study.

The second paper of the evening was presented by Dr. Vincent P. Rossignoli, on "Sodium Amytal as a Substitute for Tube Feeding." Dr. Rossignoli has studied the effect of sodium amytal on the mental patient who does not eat. He finds that the use of sodium amytal changes the reaction of the patient so that he or she becomes more co-operative, is in better contact, and tube feedings can be dispensed with.

This paper was discussed by Dr. Kiene and others present.

Meeting adjourned at 11:15 P. M. and was followed by a collation.

Respectfully submitted,

NILES WESTCOTT, M.D., *Secretary*

### RHODE ISLAND ASSOCIATION OF RECORD LIBRARIANS

The Rhode Island Record Librarians' Association was organized on October 15, 1935. The officers are: President, Miss Irene Cavanaugh, Providence Lying-In Hospital; Vice President, Mrs. Ellison Creighton Frazier, Rhode Island Hospital; Secretary-Treasurer, Miss Elizabeth Bingham, St. Joseph's Hospital.

Misses Kempton and Dorothy Pillion represent the Charles V. Chapin Hospital; Miss Madeline Fournier, the Emma Pendleton Bradley Home; Miss Sarah Litwin, Miriam Hospital; Miss Elizabeth Bingham, St. Joseph's Hospital; Mrs. Ellison Creighton Frazier and Miss Helen Jackson, Rhode Island Hospital; Miss Agnes Deasy, R.N., Homeopathic Hospital; Miss Mary Nunez, Memorial Hospital; Mrs. Doris Champagne, Woonsocket Hospital; Miss Mary Harrold, R.N., Westerly Hospital, and Miss Evelyn Parry, R.N., Newport Hospital.

Meetings are held the third Tuesday of every month at the Rhode Island Medical Library. The Association aims to seek uniformity in the various procedures adopted in hospital record rooms, particularly in the manner of record keeping and filing; it also aims to be of service to the Record Librarians of each hospital and sincerely hopes to encourage discussion leading to the adoption of such uniform procedures.

In October, 1936, four members attended the Annual Convention of the Record Librarians of North America. They were Miss Irene Cavanaugh, Providence Lying-In Hospital; Miss Adriel Murphy and Mrs. Ellison Creighton Frazier, Rhode Island Hospital, and Miss Evelyn Parry, R.N., Newport Hospital.

Dr. Joseph Smith from the Health Department of the City Hall spoke to us on Birth and Death Returns. His talk proved interesting and was of great value.

During the year, we have held meetings in the Record Department of the Rhode Island Hospital



and the Westerly Hospital. At these meetings the Record Rooms were inspected and much information was gathered regarding the systems in vogue at that particular hospital.

In March, 1937, the meeting was held at the State Hospital. Mr. Nicholas Janson, Chief Clerk, showed us where the records of the patients were kept and the manner in which they were recorded.

Respectfully submitted,

ELIZABETH M. BINGHAM,

*Secretary*

#### NATIONAL SOCIETY FOR THE ADVANCEMENT OF GASTROENTEROLOGY

An open meeting of the National Society for the Advancement of Gastroenterology was held at the Medical Library on Thursday, May 13, at 8:30 P. M. and was attended by many Fellows of the Rhode Island Medical Society. Dr. Frank A. Cummings, President of the Rhode Island Chapter, presided and introduced the several speakers. Dr. Roy Upham, Professor of Gastroenterology at the New York Medical College and Flower Hospital, spoke on "The Cholecystectomized Invalid." He encounters these individuals too often in his practice and lays the blame for their predicament on "the present scourge of incompetent surgery." Dr. Anthony Bassler, President of the National Organization, gave "Case Reports and Discussion." He detailed a case of diarrhea cured by vaccine, one of ascarides not relieved by multiple abdominal operations, several cases of post-operative hepatic deficiency, and one of diaphragmatic hernia relieved without operation. Dr. Samuel Weiss, Professor of Gastroenterology at the New York Polyclinic, gave a practical address on "Newer Synthetic Drugs in the Treatment of Biliary Disease."

The discussion was opened by Dr. Charles W. McClure of Boston. Dr. Arthur T. Jones stressed the importance of examination of the bile ducts during gallbladder operations. Dr. Frederic V. Hussey outlined possible causes of failure in gallbladder surgery and showed lantern slides which demonstrated post-operative spasm of the choledochal sphincter.

The annual meeting of the American Association for the Study of Goiter will be held in Detroit, Michigan, June 14, 15, 16, 1937, with headquarters at the Book-Cadillac Hotel. Dr. W. Blair Musser, Kane, Pa., is the Corresponding Secretary.

#### Local Events

May 11.—Dr. Herbert G. Partridge entertained the Amos Throop Medical Club at Hearsthouse House. Dr. Harry C. Messinger presented a paper on "The Role of Vitamins in the Eye."

May 14.—At the regular meeting of the William W. Keen Medical Club, Dr. William P. Davis read a paper on "Acute Gall Bladder Disease in Childhood."

May 17.—Dr. Frank B. Cutts entertained the Thirty-four Medical Club at his residence on Rochambeau Avenue. He presented a paper on "Surgery in Patients with Heart Disease." In a review of recent literature on this subject, he noted Marvin's opinion that "a heart which is damaged but is capable of meeting the ordinary demands of daily life is the equivalent of a normal heart for the purposes of anesthesia and operation." Dr. Cutts concluded, "As a general rule it is quite safe to expect that, with the exception of syphilitic aortic regurgitation, a heart will survive anesthesia and operation successfully if it produces no symptoms in carrying out the demands made on it in ordinary life."

May 18.—The sixth lecture in the series arranged for the General Staff of the Homeopathic Hospital of Rhode Island was given by Dr. W. Richard Ohler on the subject, "More About Medical Odds and Ends."

May 26.—The regular monthly meeting of the Jacobi Medical Club was held at the Miriam Hospital Annex at 8:45 P. M. Dr. Max Davis of Boston addressed the Club on "The Use of Endocrine Products in Gynecology and Obstetrics."

#### Providence Lying-In Hospital

Interest in the course of clinical lectures sponsored by the Rhode Island Medical Society and given at the Providence Lying-In Hospital is shown by the increasing attendance. The first lecture of the series, on May 6, was given by Dr. Edward S. Brackett, with the subject, "The General Practitioner and His Obstetrical Problems." The speaker was introduced by Dr. John G. Walsh. Dr. John E. Donley, President of the Rhode Island Medical Society, in an introductory address, extended congratulations and greetings from the State Society. Analyzing 350 maternal deaths in Rhode Island, Dr. Brackett summarized the general practitioner's

possible contribution to reduced maternal mortality. He stated that the obligation of the specialist is to improve himself and to spread improvements in his specialty.

On May 13, Dr. Paul Appleton spoke on "Prenatal Care." He emphasized the need for personal contact between obstetrician and patient before the time of delivery. He spoke of the importance of pelvimetry, of regard for the premonitory signs of toxemia, and of diagnosis of the posture and presentation, all tending to bring the patient to term in the best possible condition.

On May 20, Dr. George W. Waterman spoke on "Difficult Labor." He emphasized the importance of pelvic measurement and illustrated the different types of pelvis with lantern slides. He then described the maternal and fetal causes of dystocia and outlined the treatment appropriate for each condition.

The fourth lecture was given by Dr. Bertram H. Buxton, Chief of Staff, on May 27. His subject was "Management of Obstetrical Hemorrhage."

The final lecture will be given on June 17, at 11 A. M. The speaker will be Dr. Alfred L. Potter and his subject, "Toxemias of Pregnancy." These lectures have proved to be of such interest and value that a second course is contemplated.

#### Woonsocket Hospital

The regular Staff meeting was held at the Woonsocket Hospital on April 12, 1937, with Dr. T. Frank Kennedy presiding. The following cases were presented: meningococcic meningitis; malignant fulminating foudroyant infection, duration twenty-four hours, Dr. Emidy; Carcinoma of left lung, duration two years, Dr. Monti; the following paper was presented by Dr. Paul E. Boucher and its discussion was opened by Dr. J. V. O'Connor, "Histidin Treatment of Peptic Ulcer."

The monthly Clinical Conference was held at the Woonsocket Hospital on April 26, 1937, with Dr. Henri E. Gauthier acting as chairman. Dr. O'Connor presented the first case: "Questionable Addison's Disease." Dr. Henri E. Gauthier discussed the above-mentioned case. The second case, one of "Amyotonia Congenita," was presented by Dr. L. H. Emidy and the discussion was indulged in by several members.

The May meeting of the Woonsocket Hospital Staff was held on the 12th. Dr. T. Frank Kennedy

presided. This meeting was entirely devoted to hospital problems and the Medical Staff, after outlining a very comprehensive plan, asked for suggestions and constructive criticisms of their proposals.

HOSPITAL NEWS: The annual appeal for funds netted the tidy sum of more than \$26,000. For a community of its size, Woonsocket should be proud of this magnificent result.

#### Butler Hospital

Butler Hospital was "At Home" to its Board of Incorporators and friends on Friday afternoon, May 21st.

It has long been felt by the Trustees and Superintendent that many misconceptions with respect to mental disorder still existed in the public mind. Having this in view, the afternoon's program was planned to be educational. In Ray Hall were arranged a number of exhibits showing in graphic and pictorial fashion the various activities of the hospital as they are carried on in the ordinary daily routine. These exhibits included an occupational therapy department for men and women in actual operation; also clay modeling as it is done in that department. Physiotherapy apparatus was displayed and its uses indicated. The School of Nursing had a graphic pictorial display, indicating what actually goes on in the hospital at 9:30 A. M. on an ordinary working day. The sources from which nurses come for affiliation and for postgraduate work were shown on maps and a large world globe. The work of the business office and the Social Service Departments was illustrated in a very interesting and practical fashion. Modern methods of diagnosis, as exemplified by psychological testing and electro-encephalography, were demonstrated, and the tests actually given. A very interesting and informative moving picture, showing many hospital activities which are impossible to show by means of an exhibit, proved very attractive and popular with the visitors. A tour was arranged through the hospital wards for those desiring it. The resources of the staff were taxed to the utmost to keep up with the demands for visits to the wards, library, and other facilities of the hospital. The department in charge of the patients' recreations, in addition to a very interesting display in Ray Hall, contributed an athletic program for the afternoon.

Between 600 and 700 visitors took advantage of the opportunity to inform themselves about the

work of the hospital and the treatment of mental disorder.

So far as is known, this is the first attempt of this sort ever made by a mental hospital to open its doors and familiarize the public with the actual therapeutic and diagnostic procedures used in the present day management of mental disorder. It is felt that this serves a very valuable purpose in the broad program of educating the public in medical matters, and should tend toward a better understanding of mental illness.

From the many inquiries and favorable comments of visitors, it is believed that this objective was adequately achieved, and the Trustees and Superintendent of Butler Hospital are to be commended on their progressive policy and their achievements in keeping abreast of the present in mental medicine.

### Rhode Island Hospital SCHEDULE FOR JUNE, 1937

- Tuesday, June 1  
10:00 A. M. II Surgical Grand Rounds  
7:30 P. M. Internes' Path. Conference
- Wednesday, June 2  
10:00 A. M. Tumor Clinic  
12:00 Noon Skin Clinic, Peters House
- Thursday, June 3  
8:45 A. M. to 12:45 P. M. Surgical Clinics  
12:00 Noon Thoracic Clinic  
12:45 P. M. Luncheon
- Friday, June 4  
11:00 A. M. Fracture Rounds  
11:30 A. M. Heart Conference
- Saturday, June 5  
9:00 A. M. Neurological Grand Rounds  
10:00 A. M. Medical Conference
- Monday, June 7  
10:00 A. M. II Surgical Grand Rounds  
4:30 P. M. Thoracic Clinic
- Tuesday, June 8  
10:00 A. M. I Surgical Grand Rounds
- Wednesday, June 9  
10:00 A. M. Tumor Clinic  
12:00 Noon Skin Clinic, Peters House
- Thursday, June 10  
9:00 A. M. Orthopedic Grand Rounds  
12:00 Noon Thoracic Clinic
- Friday, June 11  
11:00 A. M. Fracture Rounds
- 11:00 A. M. Pediatric Grand Rounds  
11:30 A. M. Heart Conference  
7:30 P. M. G. U. Meeting  
8:30 P. M. Surgical Staff Meeting
- Saturday, June 12  
9:00 A. M. Neurological Grand Rounds  
10:00 A. M. Medical Conference
- Monday, June 14  
10:00 A. M. I Surgical Grand Rounds  
4:30 P. M. Thoracic Clinic
- Tuesday, June 15  
10:00 A. M. II Surgical Grand Rounds  
7:30 P. M. Internes' Path. Conference
- Wednesday, June 16  
10:00 A. M. Tumor Clinic  
12:00 Noon Skin Clinic, Peters House
- Thursday, June 17  
9:00 A. M. Orthopedic Grand Rounds  
12:00 Noon Thoracic Clinic
- Friday, June 18  
11:00 A. M. Fracture Rounds  
11:30 A. M. Heart Conference
- Saturday, June 19  
9:00 A. M. Neurological Grand Rounds  
10:00 A. M. Medical Conference, Peters House
- Monday, June 21  
11:00 A. M. II Surgical Grand Rounds  
4:30 P. M. Thoracic Clinic
- Tuesday, June 22  
10:00 A. M. I Surgical Grand Rounds
- Wednesday, June 23  
10:00 A. M. Tumor Clinic  
12:00 Noon Skin Clinic, Peters House
- Thursday, June 24  
9:00 A. M. Orthopedic Grand Rounds  
12:00 Noon Thoracic Clinic
- Friday, June 25  
11:00 A. M. Pediatric Grand Rounds  
11:00 A. M. Fracture Grand Rounds  
11:30 A. M. Heart Conference
- Saturday, June 26  
9:00 A. M. Neurological Grand Rounds  
10:00 A. M. Medical Conference
- Monday, June 28  
10:00 A. M. I Surgical Grand Rounds  
4:30 P. M. Thoracic Clinic
- Tuesday, June 29  
10:00 A. M. II Surgical Grand Rounds
- Wednesday, June 30  
10:00 A. M. Tumor Clinic  
12:00 Noon Skin Clinic, Peters House

Dr. Wilfred Hood, of Brighton, Mass., who interned at the R. I. H. from April 15, 1935, to May 1, 1937, left for his home on May 3, 1937, expecting to return to Providence on June 1st to interne at the Lying-In Hospital for a period of six months.

Dr. James P. McCaffrey's internship at the R. I. H. started May 15th. Dr. McCaffrey, whose home is in Providence, attended Harvard College 1929-33 and Tufts Medical 1933-37.

Dr. R. Frederick Nuessle, who has been connected with the State Hospital at Howard since he left the R. I. H., has gone to his home in Bismarck, North Dakota, and taken up residence at a surgical clinic in that city.

On May 10th, Dr. Reeve H. Betts, former intern at the R. I. H. and now of the Lahey Clinic, Boston, gave an interesting talk, illustrated by colored moving pictures, on Thoracic Surgery, before the members of the New England branch of the American Nursing Association. Several nurses from the R. I. H. attended.

Dr. S. Forest Martin has just recovered from an attack of scarlet fever. He is back on duty at the Massachusetts Eye and Ear Infirmary.

Dr. William Lessel Leet, former Night Superintendent of R. I. H., was the guest speaker at the Teachers' Association in Cranston the night of May 19th. Dr. Leet's subject was "The Right Way to Weigh Right."

### St. Joseph's Hospital

The monthly Staff Meeting of St. Joseph's Hospital was held on May 13 at 12 o'clock noon. Paper: "Circulatory Disturbances of the Extremities" was presented by Dr. Henry H. Faxon of Boston. Dr. Faxon, who is one of the active members of the Massachusetts General Hospital Staff and is associated with the group studying Circulatory Diseases, presented a very enlightening discourse based upon a large series of cases which have been treated at the Massachusetts General Hospital. He spoke extensively on the treatment of varicosities of the lower extremities. His remarks depicted well what advances can be made when particular lesions are taken over for study, as was done in this particular instance. Undoubtedly many of our Staff were surprised to learn that the findings of this group study showed that the general practice in the treatment of these cases in this locality is far from satisfactory. Many remarked at the surprising informa-

tion they had gained through this lecture and were very commendatory of the manner in which Dr. Faxon presented the problem.

The marriage of Dr. John A. Gormly, 187 Academy Avenue, Providence, to Miss Helen Johnston, formerly of the Record Office of the Rhode Island Hospital, took place on May 26.

The Annual Outing and Dinner of Saint Joseph's Hospital Staff Association will be held on Wednesday, June 16, at the Metacomet Club, at 1 o'clock. Refreshments will be served at the Club for those arriving during the afternoon. The afternoon will be devoted to open field and the evening to dinner and entertainment. Those who desire to participate in the golf tournament are requested to communicate with either Dr. Richard F. McCoart or Dr. Francis D. O'Connell. It is earnestly hoped that there will be a large attendance at this outing.

### Memorial Hospital

There is a new internes' library and reading room in the process of construction. Plans are being made for a complete new X-ray Department with new equipment. Changes are also contemplated in the surgical operating corridor.

Dr. and Mrs. John H. O'Brien announced the birth of a daughter on April 4, 1937.

Dr. Edward H. McCaughey was married April 5, 1937, to Miss Christine Norton.

Dr. Francis C. Kennedy was married on May 20, 1937, to Miss Kathryn Heston of Central Falls.

Dr. F. V. Hussey has recently returned from vacationing in Bermuda.

Four of the internes are leaving the Memorial Hospital June first.

Dr. James E. Fell will spend from June 5 to August 30 at the State Infirmary at Howard. Starting September 1, 1937, he will begin a one year's residency at Carney Hospital, Boston.

Dr. Harold E. Epling intends to take a post-graduate course for two weeks at the New York Tonsil Clinic. Following this he will begin private practice at Pittsfield, New Hampshire.

On June 1, Dr. Calvin B. Chamberlain will take the first part of the National Board examinations. Beginning July 1, he will start a year's work as a district physician at the Boston Dispensary.

After completing his State Board examinations, Dr. John B. Curtis will start his private practice at Lincoln, Rhode Island.



**Charles V. Chapin Hospital**

Francis A. DeCesare, M.D., who commenced an internship December 1, 1936, was off duty six weeks because of illness but is now back on service and will finish his appointment on June 30. He is a graduate of Providence College and the University of Naples, in Italy.

Edward V. Heffernan, M.D., served an internship of six months here, leaving March 31, 1937, to accept an appointment at the Truesdale Hospital in Fall River. Dr. Heffernan graduated from Georgetown Medical School in 1935. He was at the Mercy Hospital in Springfield, Massachusetts, before coming here. He is a graduate of LaSalle Academy and Providence College.

Herman B. Marks, M.D., completed a six-month service on March 31. He attended Brown University and Tufts College Medical School, graduating from the latter in June, 1934. Before coming to the Charles V. Chapin Hospital, he served an appointment of one year at the William W. Backus Hospital, Norwich, Connecticut. He is opening an office in Pawtucket for the practice of pediatrics.

Vincent G. Tosti, M.D., who was graduated from the Long Island College of Medicine in 1933 and had served two years at the Mary Immaculate Hospital in Jamaica, Brooklyn, came here January first. On April first he returned to become a resident in pediatrics at the Long Island College Hospital for one year, following which he plans to practice pediatrics in Brooklyn, New York.

On the first of April, Bernard N. Gagnon, M.D., another graduate of the Long Island College of Medicine (1935), started a three-month service. He was previously instructor in bacteriology for four years at that institution and has been interning at the Long Island College Hospital for the past two years. Upon leaving here in June, he is going into private practice, probably in Portland, Maine, his home state.

Alfred Conte, M.D., of this city, a graduate of Georgetown University Medical School (1934), commenced a six-month appointment here on April first. He had previously served two years at St. Joseph's Hospital, this city, and three months at the State Sanatorium, Wallum Lake.

George A. Hyder, M.D., of Lawrence, Massachusetts, also started an internship at the Charles V. Chapin Hospital on April 1. He was graduated from Tufts College Medical School this year.

**STRONGYLOIDES STERCORALIS**

LAURENCE A. SENSEMAN, M.D.

A CASE REPORT FROM THE MEMORIAL HOSPITAL, THROUGH THE COURTESY OF DR. JOHN F. KENNEY, CHIEF OF THE MEDICAL SERVICE, AND DR. CHARLES H. HOLT, CHIEF OF THE SURGICAL SERVICE

No. 40391 (M.H.) Age: 19, Female, Single. Admitted 1/22/37. On Surgical Service.

Transferred to Medical Service on 2/10/37.

Discharged: 2/22/37.

**HISTORY:**

*Chief Complaint:* Pain in abdomen—4 days.

*Present Illness:* Patient has been having sharp abdominal pains off and on for the past four days. They have been localized to the right lower quadrant. Associated with pain, patient has been nauseated but did not vomit and has lost her appetite. It did not keep her from her work, however. On admittance, patient had one degree temperature and slightly increased pulse; 9800 W.B.C. Polys. 61. Lymph. 27. Eosinophiles 12.

*Past History:* Mumps at 5 years. T. & A. at 7 years of age. No other serious illnesses. Patient states that she has noticed an urticarial rash on the face about 3 times, the last being just two days before Christmas.

*Family History:* Mother and father living and well. 4 other children in family. One sister, appendectomy here in August. No diathesis.

*Systemic History:* Negative.

*Physical Examination:* Well nourished and developed white female adult, lying quietly in bed, does not look very sick, but complaining of pain in the right lower quadrant associated with some nausea.

*Abdomen:* There is definite tenderness in the right lower quadrant and a slight degree of muscle spasm. No rigidity. Some referred rebound tenderness. There is a small palpable mass in the lower right quadrant which was movable—this, however, disappeared following an enema. No palpable viscera.

Remainder of physical examination was entirely negative.

*Diagnosis:* Subacute appendicitis intestinal parasites (?).

*Note:* On finding eosinophilia patient questioned about diet. Has eaten quite a bit of fresh meats; not much pork, however. Has had no muscle pains.

*Blood Work:*

	Hgb.	R.B.C.	W.B.C.	Poly.	Lymph.	Eosin.	L.M.	Baso.
1/21	90	.....	9,800	61	27	12	...	...
1/22	93	4,550,000	8,750	48	34	16	2	...
2/8	.....	.....	9,400	38	50	10	...	2
3/4	.....	.....	8,600	58	30	9	2	1

*Urine:* Essentially negative.

*Feces:*

1/25—Strongyloides stercoralis, motile, rhabdiform parasites found and identified in the stool. These are about 250 microns in length.

These were found consistently in the feces on multiple stool examinations.

2/11—The stools of seven members of the family were examined and found negative.

2/19—Gentian violet therapy began.

2/20—There were 10 to 12 motile parasites per preparation present.

2/22—Dead worms were found on the second day.

2/23—Two motile worms found.

Since this date and until the present date the stool specimens show a great diminution in the number of worms found and these are non-motile. It is necessary to do more than one preparation to find any at all.

3/8—No parasites found.

## PROGRESS NOTES:

1/25/37—Examination of the anus shows no signs of irritation or worms, especially pin worms. There is, however, a small depression at about 6 o'clock of no importance at present. Still complains of pain in the lower right quadrant. Temp. 99. P. 90. R. 20.

1/28/37—Patient operated on this morning. Chronic appendix removed which was immediately opened and taken to the laboratory where motile rhabdiform parasites identical to those found in the stool were present.

1/31/37—General condition is good. Temp. 100.

2/12/37—Patient transferred to the medical service, following uneventful surgical convalescence.

2/15/37—Condition the same.

2/19/37—Gentian violet  $\frac{1}{2}$  gr. 1 t. i. d. Vomiting with first administration of tablet; none since.

2/22/37—Discharged to continue gentian violet at home and bring in daily stool specimen. Patient has had no further symptoms or complaints since the operation.

The Fifth International Congress of Radiology will convene at the Palmer House, Chicago, September 13 to 17, 1937. More than 250 scientific papers will be read at the five-day meeting. These will be delivered in each lecturer's own language and will be automatically flashed on screens in English, German and French as the papers are read. What will probably be the greatest scientific and technical exhibit in the history of a radiological congress will be assembled by physicians, physicists and manufacturers of such equipment in conjunction with the congress. The general secretary of the congress is Dr. Benjamin H. Orndoff, 2561 North Clark Street, Chicago.

## OBITUARY

CHARLES F. DEACON, M.D.

Charles Frederick Deacon was born in Providence May 13, 1874, and died February 24, 1937. He was born of English parents and was the youngest of three children. He attended the Benefit Street Primary School and a Pawtucket grammar school and high school. He was graduated from Brown University in the class of 1896 and from Harvard Medical School in 1900, and immediately on graduation started practice on Friendship Street, where he continued to the time of his death. He was a member of the Providence Medical Association, the Rhode Island Medical Society and the American Medical Association.

For the past nineteen years he had served the Providence Medical Association as Treasurer. For many years he was surgeon of the Providence Fire Department. He was examiner for several life insurance companies. He was a 32nd degree Mason. The death of his wife, Grace Hazard, in 1932, was a shattering blow to him who treasured so much her guidance and companionship.

He was modest, retiring, self-effacing, seldom speaking on the floor at our Association meetings. He kept abreast of medical progress, his ambition being to incorporate in his practice the tested developments in scientific medicine. He had a large and lucrative practice, being versed, too, in the art of his profession, as the affection of his grateful patients attests. To a small group of his intimates he was a delightful companion and a faithful friend.

GEORGE S. MATTHEWS, M.D.,

D. FRANK GRAY, M.D.